

WHAT IS CLAIMED IS:

1. An actuating mechanism for a movable arm of a pipe bender, comprising:
 - 5 a power source for delivering torque for displacing a movable arm of a pipe bender with; and
 - a transmission for passing on movement of the power source to the movable arm, the transmission including:
 - (1) a planetary gear set, the planetary gear set having a sun gear fixedly
10 disposed in a front portion of the pipe bender, and a central shaft arranged in the sun gear for connection with the power source; the planetary gear set having an actuating shaft arranged in the sun gear, and connected to the movable arm for allowing the movable arm to move together therewith; the planetary gear set having a plurality of
15 planet pinions rotary on respective shafts supported in position on the actuating shaft; the planet pinions being engaged with both the central shaft and a toothed inner side of the sun gear;
 - (2) a crown gear securely connected with a lower end of the central shaft of the planetary gear set; and
 - 20 (3) an actuating pinion securely connected with an output shaft of the power source, and engaged with the crown gear.
2. The actuating mechanism for a movable arm of a pipe bender as claimed in claim 1, wherein the power source is a gear reduction

motor.

3. An actuating mechanism for a movable arm of a pipe bender, comprising:

a power source for delivering torque for displacing a movable arm of a pipe bender with; and

a transmission for passing on movement of the power source to the movable arm, the transmission including:

- (1) a planetary gear set, the planetary gear set having a sun gear fixedly disposed in a front portion of the pipe bender, and a central shaft arranged in the sun gear for connection with the power source; the planetary gear set having an actuating shaft arranged in the sun gear, and connected to the movable arm for allowing the movable arm to move together therewith; the planetary gear set having a plurality of planet pinions rotary on respective shafts supported in position on the actuating shaft; the planet pinions being engaged with both the central shaft and a toothed inner side of the sun gear;

- (2) a crown gear securely connected with a lower end of the central shaft of the planetary gear set; and

- (3) an actuating pinion securely connected with an output shaft of the power source, and engaged with the crown gear;

the power source including:

- (1) a motor for delivering torque to the movable arm; and

- (2) a second planetary gear set, the second gear set having a sun gear

fixedly disposed in the front portion of the pipe bender; the second gear set having a central shaft arranged in the sun gear and securely connected with an actuating shaft of the motor to be rotary together with the actuating shaft; the output shaft of the power source being arranged in the sun gear; the second gear set having a plurality of planet pinions rotary on respective shafts supported in position on the output shaft; the planet pinions being engaged with both the central shaft and a toothed inner side of the sun gear.

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